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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/758,268

01/12/2001

Hakaru Matsui

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12/10/2003

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EXAMINER

IP, SIKYIN

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 12/10/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,268

Applicant(s)

MATSUI ET AL.

Examiner

Sikyln Ip

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 15-18, 21, 22 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 15-18, 21, 22, 24, 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 17-18, 21-22, 24, and 28 are rejected under 35 U.S.C. § 103 as being unpatentable over JP 11293365 (PTO-1449; abstract (57), lines 5-7 - composition; and Figure 1 - diameter of conductor), JP 51045528 (abstract, line 1 - composition; line 5 - wire diameter), JP 11293431 (abstract (57), lines 1 and 3 - wire diameter, lines 4-6 - composition), or JP 2000169918 (abstract (57), lines 3-4 - composition; paragraph [0017] - wire diameter) in view of JP 61113740 (abstract, lines 1-3 and 14-15).

4. Claims 1, 3, 17-18, 22, 24, and 28 are rejected under 35 U.S.C. § 103 as being unpatentable over JP 05051675 (abstract (57), lines 1-2) in view of JP 61113740

(abstract, lines 1-3 and 14-15).

5. Claims 1-3, 17-18, 21-22, 24, and 28-31 are rejected under 35 U.S.C. § 103 as being unpatentable over JP 57070244 (abstract, lines 1-4 and 9-10) or DD 290501 (abstract, lines 1-5) in view of JP 61113740 (abstract, lines 1-3 and 14-15).

6. The cited reference(s) disclose(s) the features including the claimed Cu based alloy composition. The difference between the reference(s) and the claims are as follows: cited references do not disclose each alloying element purity level. However, JP 6113740 in abstract teaches 5N purity copper is conventionally use for wires in the same field of endeavor or the analogous metallurgical art for improving conductivity. With respect to other alloying elements such as Ag, Mg, and/or In, it is well settled that the difference in degree of purity itself does not predicate invention. In re Merz, 38 USPQ 143 and In re King et al, 43 USPQ 400. The claimed purity of each elemental element does not exist in the final wire product. The inevitable impurity levels of each elemental alloying element in the cited references do not change the composition of the final wire product. Moreover, it is well settled that a prima facie case of obviousness would exist where the claimed ranges and prior art do not overlap but are close enough that one ordinary skilled in the art would have expected them to have the same properties, In re Titanium Metals Corporation of America v. Banner, 227 USPQ 773 (Fed. Cir. 1985), In re Woodruff, 16 USPQ 2d

1934, *In re Hoch*, 428 F.2d 1341, 166 USPQ 406 (CCPA 1970), and *In re Payne* 606 F.2d 303, 203 USPQ 245 (CCPA 1979). To overcome the prima facie case, an applicant must show that there are substantial, actual differences between the properties of the claimed compound and the prior art compound. *Hoch*, 428 F.2d 1343-44, 166 USPQ 406 at 409.

7. JP 05051675, JP 57070244, and DD 290501 do not disclose the wire diameter. But, as are evinced by JP 51045528, JP 11293431, or JP 2000169918 that the claimed wire size is a conventional high strength wire size. Accordingly, it would have been prima facie obvious for an ordinary skill artisan motivated by a reasonable expectation of success to use the alloys of JP 05051675, JP 57070244, and DD 290501 for wire in order to obtain all of the known benefits. *In re Venner*, 120 USPQ 193 (CCPA 1958), *In re LaVerne, et al.*, 108 USPQ 335, and *In re Aller, et al.*, 105 USPQ 233.

8. Claims 4 and 15-16 are rejected under 35 U.S.C. § 103 as being unpatentable over references as applied to claims above in view of JP 02204919 (abstract, lines 1-5).

9. The claimed subject matter as is disclosed and rejected above by the cited reference(s) except for the other elements and plating the wires. JP 02204919 in abstract disclose that plated wire to improve coil feeding and solderability.

Therefore, it would have been obvious to one having ordinary skill in the art of the

cited references at the time the invention was made to plate the wire as taught by JP 02204919 in order to improve/provide coil feeding and solderability. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

Response to Arguments

10. Applicant's arguments filed July 16, 2003 have been fully considered but they are not persuasive.

11. Applicants' argument as set forth in pages 8-10 of the instant remarks is noted. But, the claimed proportion of each element is clearly disclosed by the abstracts of cited references. Nonetheless, the pertinent lines in the abstracts are pointed out in the rejection above for applicant's convenience. Purity argument with respect to '365, '528, '431, '918, '675, '244, '501, '740, and '919 is noted. But, the claimed purity of each element is prior to forming the claimed wire. The claimed purity of each elemental element does not exist in the final wire product. The inevitable impurity levels of each elemental alloying element in the cited references do not change the composition of the final wire product.

12. Applicants argue that the alloy of JP '528 contains Mn. But, the transitional expression "consisting essentially of" in claims rejected by said reference does not exclude Mn. See Ex parte Davis, et al., 80 USPQ 448, 450 (PTO Bd. App. 1948), In

re Janakirama-Rao, 317 F. 2d 951, 137 USPQ 893, 894 (CCPA 1963), In re Garnero, 412 F 2d 276, 162 USPQ 221, 223 (CCPA 1969), and In re Herz, et al., 190 USPQ 461, 463 (CCPA 1976). When applicant contends that modifying components in the reference composition are excluded by the recitation of "consisting essentially of" applicant has the burden of showing the basic and novel characteristic of his/her composition - i.e. a showing that the introduction of these components would materially change the characteristics of applicant's composition. In re De Lajarte, 337 F 2d 870, 143 USPQ 256 (CCPA 1964) and Ex parte Davis, et al., 80 USPQ 448, 450 (PTO Bd. App. 1948).

13. Applicants argue that the alloy of JP '675 contains In. The examiner reiterates the response as set forth in item 12 above.

14. Applicants' argument in page 10, paragraph (vi) of the instant remarks is noted. But it is erroneous to interpret that the alloy of JP '244 must include (Mn, In, Al, and etc) which are optional elements, not essential elements.

15. Applicants' argument as set forth in page 10, (vii) and page 11, (iii) of the instant remarks is noted. But, again, it is erroneous to interpret that the alloy of DD '501 must include Ga which is merely an optional element (see abstract).

16. Applicants' argument as set forth in page 11, (I) of the instant remarks is noted. But, the examiner reiterates the response as set forth above in item 12.

17. Applicants' remarks with respect to JP '740 is noted. But, said reference is cited merely to show the claimed Cu purity is conventional.

18. Applicants' argument as set forth in pages 14-15 of the instant remarks is noted. The improvement of wire drawn is less than 2 but the impurity level is 17 times higher which does not show the claimed purity level is critical.

19. Applicants argue that alloys of '365 and '918 do not contain In or Mg. But, claims rejected by said references do not contain In or Mg.

20. Applicants' argument in paragraph bridging pages 7-8 of the instant remarks is noted. But, purity of an elemental element is usually reduced if mixed with other elements. Therefore, the purity before mixing with other element would be much higher.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

22. Applicant is reminded that when amendment and/or revision is required,

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applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121.


Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (703) 308-2542. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (703)-308-1146.

The facsimile phone numbers are (703) 872-9310 (non-final Official Paper only), (703) 872-9311 (after-final Official Paper only), and (703) 305-7719 (Unofficial Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.



SIKYIN IP
PRIMARY EXAMINER
ART UNIT 1742

S. Ip
October 6, 2003